

MANUFACTURE OF SEMICONDUCTOR DEVICE

MANUFACTURE OF SEMICONDUCTOR DEVICE

Patent Number: JP61210623
Publication date: 1986-09-18
Inventor(s): ISHIBASHI AKIRA; others: 01
Applicant(s): SONY CORP
Requested Patent: ☐ JP61210623
Application Number: JP19850052974 19850315
Priority Number(s):
IPC Classification: H01L21/205; H01L29/80
EC Classification:
EC Classification:
Equivalents: JP1902319C, JP6020039B

Abstract

PURPOSE: To arrange and form a lot of minute hetero interface intersecting facial direction by controlling width of an island spreading in direction of a face where the second compound semiconductor layer is deposited on the first compound semiconductor layer.

CONSTITUTION: When epitaxial growth is performed for the first compound semiconductor layer e.g. GaAs layer 2 on a substrate 1 e.g. GaAs substrate nby MOCVD and is consequently performed for the second compound semiconductor layer 3 by MOCVD by changeovering supply raw gas, an island 4 of a low atomic layer is generated to the layers 2, 3. The island 4 selects the width W in the range of epitaxial growth temp. at a hetero interface of the both layers 2, 3 i.e. the substrate temp. 650-850 deg.C at the time of MOCVD and the hetero interface of AIAs/GaAs formed to the side face of the island 4 by selecting pitch under temp. control e.g. many hetero interfaces crossing with deposited face direction of the both layers 2, 3 are formed.